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The University of Michigan Institute of Science and Technology (IST) announced today that a team of infrared engineers is now in Hawaii making heat maps of the terrain around Kilauea, a restless volcano near the famous Mauna Loa crater.

The engineers from IST's Infrared Laboratory are making regular mapping flights, day and night, over the volcano in an effort to detect subsurface heat differences with a special infrared instrument. The instrument, consisting of a detector element and a lens system, has been provided by the U.S. Army. Although it is obsolete for military applications, the equipment, when modified, is ideally suited for scientific purposes. The modifications were made by the Infrared Laboratory.

The U.S. Geological Survey is sponsoring the work as part of its intensive program to learn more about the composition and structure of the earth. Because Kilauea recently showed signs of increased activity, the Geological Survey wanted infrared data from the area since measurements of infrared radiation yield information on temperature. IST sent Fabian Polcyn, Carl Miller, Alan Parker, and John Spisak to collect the data from an airplane flying at altitudes between 1500 and 10,000 feet. The

twin-engine B-26 aircraft and a variety of aerial cameras have been supplied by Aero Service Corporation, Philadelphia.

Marvin R. Holter, IST research engineer and principal investigator on the project, said "The flights started today (Jan. 25) and may continue for three or four weeks. The use of various remote sensing devices to study the earth has been of particular interest to IST for some time. This volcano study is just one of the possible applications of these relatively new sensing devices to problems in the earth sciences, and I expect that this study, and others that may be started in the future, will yield new and valuable information."

Kilauea volcano, more than 4000 feet high, is located on the southeast side of the island near Hilo. The legendary home of the fire goddess "Pele," this volcano has a long history of volcanic eruptions, and has been particularly active in recent years. The most spectacular eruption in modern times occurred in 1959-1960 when hundreds of millions of ~~more than a billion~~ cubic yards of lava poured from the summit and deep fractures (called "rift zones") on the flanks of the volcano. These rift zones, which radiate southwest and east from the crest of Kilauea, will be of particular interest in the current study.